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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Dennis KHOO, et al.

ART UNIT: 2611

SERIAL NO.: 09/750,530

EXAMINER: Salce

FILED: December 28, 2000

FOR:



METHOD AND SYSTEM FOR PROVIDING A REWARD  
FOR PLAYING CONTENT RECEIVED OVER A DATA  
NETWORK

**SUPPLEMENTAL AMENDMENT**

Assistant Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SIR:

Supplemental to the Amendment filed November 5, 2004, enclosed herein is the  
executed Declaration Under 37 CFR 1.131 of inventors Raymond F. Ratcliff, III and Denis  
Khoo, to be made of record in the instant application.

Please charge any fees associated with this submission to Deposit Account No. 50-  
3266.

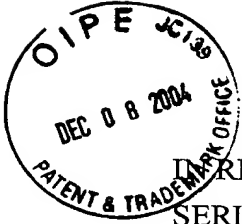
Respectfully submitted,

PIPER RUDNICK, LLP

Lisa Norton  
Registration No. 44,977

Piper Rudnick, LLP  
P.O. Box 9271  
Reston, VA 20195  
Tel. (703) 773-4141  
Fax. (703) 773-5000

DOCKET NO. 6000-011-52 (IN 105)



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Denis KHOO, et al.

ART UNIT: 2611

SERIAL NO.: 09/750,530

EXAMINER: Jason P. Salce

FILING DATE: December 28, 2000

FOR: METHOD AND SYSTEM FOR PROVIDING A REWARD FOR PLAYING  
CONTENT RECEIVED OVER A DATA NETWORK

**DECLARATION UNDER 37 CFR § 1.131**

ASSISTANT COMMISSIONER FOR PATENTS  
PO BOX 1450  
ALEXANDRIA, VA 22313-1450

SIR:

We, Raymond F. Ratcliff, III and Denis Khoo, hereby declare and state as follows:

1. This Declaration is submitted as evidence that the subject matter claimed in the above-identified application was invented by the present inventors prior to July 9, 1997, and diligently reduced to practice through the writing of code, hiring of several software and hardware engineers, the management of said engineers, and the filing of the present application.

2. We are the persons named as the inventors of the above-identified application.

3. We have reviewed the present claims 1, 9-12, 17-18, 22, 44-47, 71, 73-74, 76, and 78 as set forth in the amendment dated November 5, 2004.

4. Prior to December 3, 1998, the filing date of Eldering et al. (U.S. Patent 6,457,010) we conceived of the invention claims in at least Claims 1, 9-12, 17-18, 22, 44-47, 71, 73-74, 76, and 78.

5. Exhibit 1 attached hereto is a copy of a sketch, accompanies by a textual explanation, that illustrates the method for media distribution that is the subject of Application No. 09/750,530. The paper, as sketched and signed by Mr. Raymond Ratcliff, was dated sometime

prior to December 3, 1998. For ease of reference, Exhibit 1 has been recently annotated to show support for various features made in the claims of Application No. 09/750,530. Titled the “New Paradigm”, the drawing on the upper right corner of Exhibit 1 is an illustration of the claimed embodiments. Starting at the bottom of the sketch, working up:

A. Each home represents individuals in different households.

B. The cable company, satellite, and Internet/wireless entities are intermediaries - passing data between individual users and a central computer. First, the intermediaries receive personal profile data from each user and forward it to the server of the central computer. After the central computer processes the user’s profile information and generates customized media content for each user, the central computer sends said customized media content back to the user via the intermediaries. Acting as clients of the central computer, the intermediaries receive said customized media content from the central computer and forward the media to the appropriate users.

C. The server of the central computer is represented in the middle of the sketch by the three-dimensional box labeled, “Individualized Scheduler Software & Server”. The central computer processes each user’s personal profile and generates customized media content accordingly. As stressed in text below the sketch, customized media content means that users receive their own ads and their own content.

D. The customized media content, generated by the central computer and distributed to individual users, consists of both advertisements and content. As seen at the top of the sketch, the central computer draws upon an advertisement database and a content database.

6. Exhibit 2 attached hereto includes portions of a confidential business plan that illustrates the invention that is the subject of Application No. 09/750,530. The business plan was dated sometime prior to December 3, 1998. For ease of reference, Exhibit 2 has been recently

annotated to show support for various features made in the claims of Application No. 09/750,530.

7. A person of ordinary skill in the art would find support for the subject matter of the claims pending before the office in Exhibit 1 and Exhibit 2 as indicated below. As previously noted, for ease of reference, Exhibits 1 and 2 have been recently annotated to show support for various features made in the claims of Application No. 09/750,530.

**Claim 1.** (Currently Amended) A method for providing a reward for ~~presenting a~~ receiving customized content having a video component and customized advertising having a video component to at least one viewer over a data network, comprising (7, 21):

transmitting the customized content and the customized advertising over the data network to a ~~content~~ reception device as part of a customized schedule generated utilizing information about the at least one viewer (7, 12-14, 17-18, 20-21);

presenting, on the ~~content~~ reception device, the customized content and the customized advertising for a presentation period (7, 21);

~~transmitting to a reward engine, over said data network, reception verification data verifying that said content reception device presented the content for the presentation period; and the reward engine providing, based on the reception verification data, a reward if said the~~ presenting of the customized content and/or the customized advertising satisfies a predetermined condition associated with the reward (12, 21).

**Claim 9.** (Currently Amended) The method of Claim 1, wherein the transmitting of the customized content and the customized advertising comprises:

requesting, by the ~~content~~ reception device over the data network, the customized content and the customized advertising from a ~~content providing~~ server (7, 18, 20-21);

retrieving, by the ~~content providing~~ server, the customized content and the customized

advertising requested (7, 18, 20-21); and

transmitting the customized content and the customized advertising to the ~~content~~ reception device through the data network (7, 18, 20-21).

**Claim 10.** (Currently Amended) The method of Claim 9, wherein the transmitting of the customized content and the customized advertising further comprises:

transmitting, by the ~~content~~ reception device, information regarding characteristics of the at least one viewer to the ~~content providing~~ server requesting the customized content and the customized advertising from the ~~content providing~~ server (7, 12-14, 17-18, 20-21) ; and

storing, by the ~~content providing~~ server, the information regarding characteristics of the at least one viewer (7, 12-14, 17-18, 20-21).

**Claim 11.** (Currently Amended) The method of Claim 9, wherein the ~~content reception device includes a content display device or a content playback device; and~~

~~the content~~ reception device requests the customized content and customized advertising based on demographic information of the at least one viewer ~~one or more users~~ associated with the ~~content~~ reception device (7, 12-14, 17-18, 20-21).

**Claim 12.** (Currently Amended) The method of Claim 1, wherein the ~~content~~ reception device includes an intelligent television or a digital device (7).

**Claim 17.** (Currently Amended) The method of Claim 1, wherein the presenting of the customized content and the customized advertising comprises:

presenting the customized content and the customized advertising for a presentation period sufficient to receive at least a portion of the customized content and the customized advertising (13-14, 21).

**Claim 18.** (Currently Amended) The method of Claim 1, wherein

the predetermined condition associated with the reward is defined to require that ~~the a~~

presentation period exceed a predetermined presentation period threshold (12-14, 21).

**Claim 22.** (Previously Presented) The method of Claim 1, wherein the reward includes:  
a monetary award or a right for a reward recipient to enter into a sweepstakes (12).

**Claim 44.** (Currently Amended) A system for providing a reward for presenting  
receiving customized content having a video component and customized advertising having a  
video component to a viewer over a data network, comprising (7, 21):

a ~~content~~ reception device capable of receiving the customized content and the  
customized advertising customized as part of a customized schedule generated utilizing  
information about the at least one viewer (7, 12-14, 17-18, 20-21);

a ~~content~~ providing server in communication with the ~~content~~ reception device and  
capable of sending the customized content and the customized advertising to the ~~content~~  
reception device (7, 18, 20-21); and

a reward engine in communication with the ~~content~~ reception device and the ~~content~~  
~~providing server~~ providing a reward generated utilizing the information about the at least one  
viewer if the presenting of the personalized content and/or the personalized advertising satisfies a  
predetermined condition associated with the reward (7, 12-14, 17-18, 20-21) ~~wherein~~

~~the content provided by the content providing server is transmitted to the content~~  
~~reception device over the data network;~~

~~the content reception device presents the content for a presentation period and~~  
~~transmits reception verification data to the reward engine, verifying that the content is~~  
~~received and presented for the presentation period, and~~

~~the reward engine provides a reward if the presentation of the content on the~~  
~~content reception device satisfies a predetermined condition associated with the reward.~~

**Claim 45.** (Currently Amended) The system of Claim 44, wherein the ~~content~~ reception

device requests the customized content and the customized advertising, prior to receiving the customized content and the customized advertising, based on a viewing/listening habit of ~~a user~~ the at least one viewer associated with the ~~content~~ reception device (7, 12-14, 17-18, 20-21).

**Claim 46.** (Currently Amended) The system of Claim ~~44~~ 45, wherein the ~~content~~ reception device requests the customized content and the customized advertising based on demographic information of the at least one viewer ~~user~~ (7, 12-14, 17-18, 20-21).

**Claim 47.** (Currently Amended) The system of Claim 44, wherein the ~~content~~ reception device comprises a ~~content~~ playback device or a ~~content~~ display device, which includes a an intelligent television or a digital device (7).

**Claim 71.** (Currently Amended) The method of Claim 1, ~~44, 59, 61, 63, or 67~~, wherein the customized content and/or the customized advertising is transmitted to the ~~content~~ reception device in response to information received requesting the customized content and/or the customized advertising (18, 20).

**Claim 73.** (Currently Amended) The method of Claim 1, ~~44, 59, 61, 62, 63, or 67~~, wherein the reward is provided by a ~~content~~ provider that transmits the customized content and/or the customized advertising (7, 21).

**Claim 74.** (Currently Amended) The method of Claim 1, ~~44, 59, 61, 63, 67, 68, or 69~~, wherein the reward is provided to the at least one viewer ~~one or more users~~ associated with the ~~content~~ reception device that presents the customized content and/or the customized advertising (16).

**Claim 76.** (Currently Amended) The ~~method~~ system of Claim ~~44, 59, 61, 63, 67, 68, or 69~~, wherein the predetermined condition associated with the reward is defined to require that ~~the~~ a presentation period exceed a predetermined presentation period threshold (12-14, 21).

**Claim 78.** (Currently Amended) The method of Claim 1, ~~44, 59, 61, 63, 67, 68, or 69~~,

wherein the predetermined condition associated with the reward is defined based on demographic information of a recipient associated with the content reception device (7, 12-14, 17-18, 20-21).

8. Prior to December 3, 1998, and until December 28, 2000, the filing date of the application in the U.S. Patent and Trademark Office, we worked diligently to reduce this conception to practice as follows:

A. By late-1998, we had developed a rudimentary software for the system. Exhibit 3 demonstrates screenshots of the client application completed before December 3, 1998. From late-1998 until 1999 we continued to perfect the code.

B. Exhibit 4 is a diagram of the overview of operations as of June 10, 1999. In 1999, we had raised enough capital to hire outside consultants to help finish software development.

C. By the winter of 1999, believing the software demonstrably complete, we contacted a patent attorney at Sonnenschein, Nath & Rosenthal in San Francisco concerning the patenting of the invention.

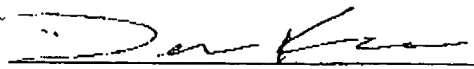
9. Together with our patent attorneys we worked diligently from the Winter of 1999 until December 28, 2000, the filing date of the application in the U.S. Patent and Trademark Office, to finalize the application.

10. We hereby declare that all statements made of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the U.S. code and that such willful false statements may jeopardize the validity of the application and any patent issued thereon.

  
Raymond F. Ratcliff, III

10/23/04  
Date



  
Denis Khoo

Nov 17, 2004  
Date

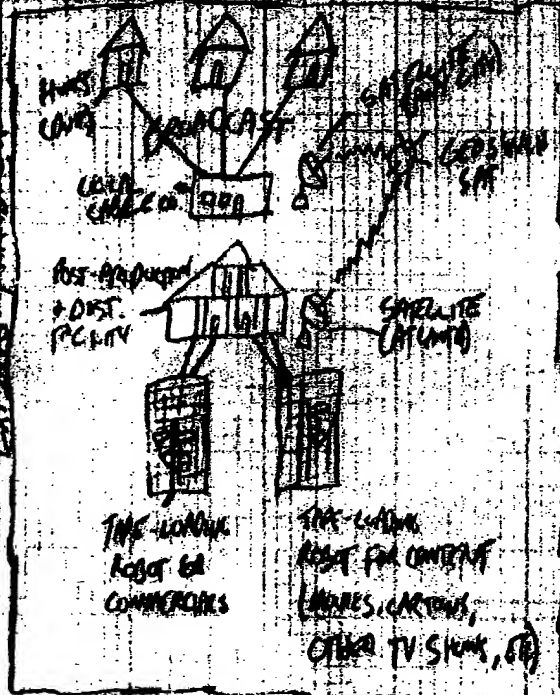
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TAN KATHAR

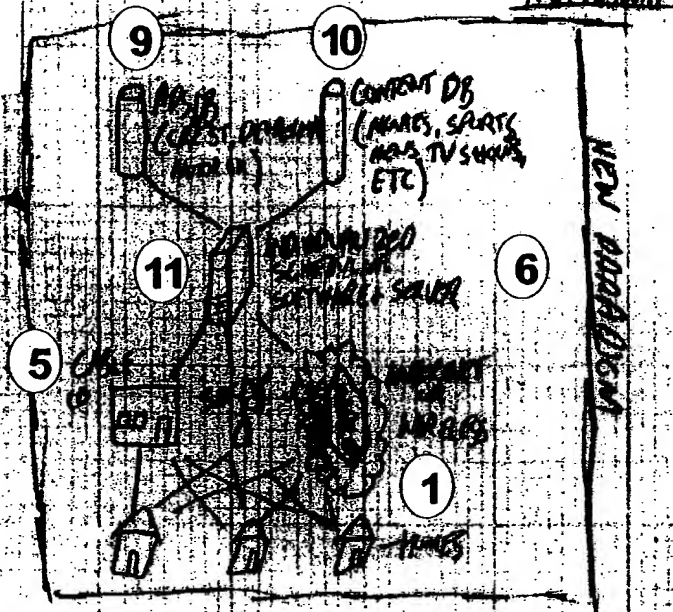
## SHIPPING OF DISTRIBUTION PARADIGM

## POST-PRODUCTION FACILITY TOUR ADRES 1

TOUR OF OFF-SITE FACILITY USED  
FOR POST-PRODUCTION & OBSERVATION  
TO CABLE CO. AND NOTED  
HUMAN OPERATIONS FOR  
EFFICIENT WORKFLOW



TECHNICAL ASPECTS BACK TOGETHER IN  
LOAD IN VCR TAPES FOR ADS & CONTENT.  
BOTH ARE LOADED IN PREDETERMINED SEQUENCE  
AND SAME SCHEDULE IS SENT TO EACH  
HOME VIA SAT → CABLE CO.



A MUCH IMPROVED PARADIGM HERE INCLUDES  
A TOTALLY NEW METHOD FOR DISTRIBUTION  
THAT IS INDIVIDUALIZED RATHER THAN BROADCAST.  
FIRST, ALL CONTENT SHOULD BE DIGITIZED INSTEAD  
OF USING VCR TAPES. 2ND, WITH INTELLIGENT  
POST-SOFTWARE, VIEWERS CAN RECEIVE THEIR OWN  
ADS OR THEIR OWN CONTENT. 3ND, ADS WILL BE  
SOLD FOR VIEWERS INSTEAD OF FOR ADVERTISERS  
SHOWN. BECAUSE DISTRIBUTION METHODS ARE NOW  
1-TO-1, THE DIGITAL MEDIA CAN USE THE  
BURGEONING INTERNET. THIS INDIVIDUALIZATION  
IS INEVITABLE - AND NO LONGER WILL THE ADVERTISER  
BE FORCED TO WATCH A PRE-DETERMINED SCHEDULE  
OF ADVERTISEMENT. 4

# 1.0 Executive Summary

## 1.1 Objective

We at Individual Network, Inc. are building the engine that will turn the gears of internet broadcasting.

Our flagship product, *Castaway*, brings a myriad of fresh entertainment and advertising/sweepstakes to the user's desktop while in screen-saver mode. We keep confidential demographic information on each user, so we can target advertisements to individual people via our one-to-one marketing paradigm. Each advertisement has an associated "prize." Every time a user sees an advertisement, they are automatically given another "entry" to win that prize. Each user is continually apprised of the number of entries they have for the prize, and it is automatically sent to their home when they win.

During the initial release of *Castaway*, the user can select from different genres of content that would appeal to people who like comics and cartoons, movie buffs, sports fans, and investors who enjoy watching their stocks. The full-screen animated content and advertisements use Flash technology, which allows large and lively animations to be presented using very little bandwidth. And of course, *Castaway* is a free product.

### ~ ~ ~ DREAM SEQUENCE ~ ~ ~

You sit in your office, behind your computer thinking about how to best prepare for your presentation tomorrow. Your computer sits idle while you think, and normally enough, the screen saver comes on. However, what's not normal is the screen saver's content. As you continue to think about your presentation, today's Dilbert comic appears on your screen. Unlike Dilbert on print, this Dilbert is fully animated and much more lively. In today's episode, Dilbert once again mocks his manager's technical intelligence. You watch and can't help but snicker. Looking at the stock ticker down below, you see that your 3Com stock just went up 2 points! This puts a big smile on your face, until you see on the sports ticker that the Razorbacks are ahead by 10 points in the 3rd quarter. Immediately following Dilbert is a comic from *The Far Side*. You love *The Far Side*! (Of course you do, otherwise you wouldn't have selected for it to be shown.) Today's *Far Side* is also fully animated and even funnier than yesterday's. This time, you can help but crack up laughing. (You will be telling your co-workers and friends about *The Far Side* comic you just saw, and unknowingly, encouraging others to use *Castaway*.) Following *The Far Side* are several other comics along with an occasional movie preview. You enjoy these comics one after another, and suddenly... what's this, an advertisement?

The most interesting feature of our product is our unique approach to advertising. Those versed in innovative marketing techniques are familiar with the concept of *one-to-one marketing*. Our product's implementation of one-to-one marketing means we know everything (all demographic information), about the user, so we can show them advertisements that have been especially

## 1.4 Keys to Success

- We must quickly go to market with this unique product, while internet broadcasting is still in its fledgling stage.
- We must make our product attractive enough to at least 100,000 users out of the 147,800,000 (Statistical sources cited at end) current internet users.
- We must make people aware of our unique engine that automatically keeps track of how exactly many advertisements are shown, the demographics to which those advertisements are shown, and the seamless integration of prize giveaways. This engine will be very attractive to other broadcast entities that will also be entering the internet broadcast arenas.



## 3.0 Products and Services

Castaway is the flagship product of Individual Network, and will probably be the only product throughout the next few years. Castaway's ease-of-use, modular design, and user customizable features will allow the product to be geared "toward the masses." It is our expectation that Castaway will revolutionize online broadcasting through its introduction of a new advertising paradigm and computer-based entertainment media.

### 3.1 Product and Service Description

Castaway is essentially a dynamic screen saver that provides entertaining content, informative tickers, and our patent pending mix of advertisement and prizes (ongoing online sweepstakes). Fresh data is delivered to the screen saver several times a day. The screen saver is similar to today's television media in many ways; while activated, Castaway is audible and provides full-screen animation. Castaway merely provides a very simple, yet effective interface, to display content. Such a nonrestrictive and powerful interface will allow for a virtually unlimited variety of content; content can thus be geared toward any users demand, much like television today.

#### 3.1.1 "Symbiosis" Engine

Castaway runs on the *Symbiosis* engine. "Symbiosis" is our code name for the underlying software which makes our application work. The details of exactly how the Symbiosis engine works are explained later in the operations section. Essentially, the symbiosis engine integrates an open-ended content display mechanism with an advertising server.

The engine itself is spread across two fronts. Without getting overly technical here, our product is comprised of two separate systems – the client and the server. The client runs on the user's computer and is capable of displaying several media types (such as pictures, sound, and animation). The client system receives all of its data from the server system via the internet. The server system sends the content and advertisements to the users computer. It is also responsible for keeping track of what advertisement is sent to a user, keeping track of the current prize database, and logging several other pieces of useful information.

Typically, information will be transferred to the user's computer before it is displayed, so there is never any "wait" time. The *Symbiosis* engine will display old content, while fresh new content is downloaded to the client's system. In the case where the user has absolutely no old content saved on his/her system and runs Castaway, the *Symbiosis* engine will be able to stream the new content to the user's machine.

The *Symbiosis* engine has several value added features for advertisements:

- Tracks the number of impressions per advertisement by user
- Tracks the number of clicks (when the user clicks on a link to find out more)
- Records gender, age, marital status, income, etc. (all of the demographic details) about the user who saw the advertisement

14

- Allows for easy generation of reports for the advertisers (Reports will be immediately available online for advertisers to view real-time statistics)

] ↑ ⑤

Consider how people currently seek out entertainment on television. They may have several different channels they like to watch, so they are constantly switching around from one program to another on different channels. Because television is one-way communication, there is no way that a viewer can customize what they see. Castaway, on the other hand, is a "personal broadcast network," meaning that users can select exactly what programs they wish to see.

Once this engine is built, it will be very attractive to other broadcast entities that wish to broadcast over the internet. Because of this, the Symbiosis engine has been designed so that another broadcast company could utilize it to broadcast their own content and plug in their advertisements. Having such a modular engine would allow for possible licensing scenarios in the future.

### 3.1.2 Interface

There are two main components to Castaway – the "dynamic content" and the "tickers." The "dynamic content" component makes up the core of Castaway. In this component, all animated advertisements and user selected content is displayed. Dynamic content is discussed in detail in section 3.1.5. The "tickers" component is optional and is displayed only if the user selects to view one or more tickers. Tickers are discussed more in section 3.1.6.

involvement from the user. In other words, for every advertisement displayed on a particular user's computer, that user will gain an additional entry towards the drawing of the associated prize, without any intervention on their part. Winners will be automatically notified of their winning via email. Upon verification and acceptance, the winners will be shipped the prize at no cost whatsoever. In summary, all viewers are automatically eligible to win prizes, and the more viewers run Castaway, the better their chances of winning. This is the first implementation of users having an incentive to watch advertisements.

**Example of advertisement/prize combination:**

- *Advertisement:* United Airlines      *Prize:* 100,000 frequent flyer miles
- *Advertisement:* SprintPCS      *Prize:* SprintPCS Phone
- *Advertisement:* Princess Cruises      *Prize:* Alaskan Cruise for two

Our incentive program is the foundation for the success of our product. Never before have advertisement viewers had an active incentive for watching commercials. The concept is simple, although it sounds trite at first glance. The more advertisements you see, the more likely you are to win.

Remember that when the user first installs the software, the user must supply his/her name and address. By doing so, they have supplied us with their shipping address for any prizes they may win. When prizes are awarded, an email is sent to the winner, and the prize is automatically sent to their home.

Depending on the number of advertisements, we will be able to have more prizes available. Most likely, we will have live drawings at noon everyday. These drawings, of course, will be all handled automatically with our Symbiosis engine. Once Castaway grows in popularity, we will be able to have many prizes every hour. It will be a non-stop sweepstakes where every viewer can win automatically, with no intervention on their part. As the number of advertisers increase, so will the number of prizes. We could potentially give away hundreds of prizes per day, with users tuning in all over the nation to see the live updates of whether or not they won.

Let's take another scenario for example. Dagny, an Castaway user, may see an advertisement for American Airlines. The associated prize may be "100,000 AAdvantage miles," which is also shown on the screen down in the ticker area. Also in the ticker area, Dagny sees that she currently has 37 entries to win that prize, meaning she has now seen that advertisement 37 different times. While the commercial is running, she reads the tickers below. They say things like:

- "5 awards of 100,000 AAdvantage miles will be given away at 2 PM PST on Tuesday, March 4th."
- "Dagny, you have 37 entries to win this prize. The average person has 28 chances, making you 27% more likely than the average person to win this prize."
- "Yesterday, our lucky American Airlines winners were Hank Reardon, John Galt, Ellis Wyatt..."
- "New prize coming next week -- an American Airlines trip for two to Rome, Italy!"

### 3.1.3.2 Current Trends in the Marketplace

The new trends towards web advertising are interesting. There is another company called "CyberGold" which is doing something remotely similar to Individual Network. This is their business model, which sounds a little shaky to us. Users come and visit their web site, and they read about a particular product. After answering a "quiz" about that product, the user is given 50 cents. This money is applied to their Visa card as a credit. Users can come back to the site as many times as they desire, but they cannot earn more than \$100 in a month.

Despite the unusual sounding business model, CyberGold memberships have grown to 1.5 million users as of March 1, 1999. There are at least half a dozen other companies who are doing this sort of promotional advertising, such as Netcentives, which offers Frequent Flyer miles in exchange for reading advertisements. All of these ideas involve a certain level of user interaction, which is the fundamental difference between our product and theirs. Fortunately, it appears that advertisers are clearly ready to embark on innovative methods of marketing their products. Our engine is the most streamlined and user-friendly method of doing so.

Perhaps the most important aspect is to differentiate ourselves from the "Click and Win" phenomenon all over the web. Users are weary of prize giveaways, because they believe that "nothing is really free." Often times, users are made to fill out long forms, answer personal questions, or put their email on some mailing list. We will require none of that. All the user needs to do is supply their address for the prize delivery, and that is only done once during the installation of the software. One of our main thrusts with our public relations campaign will be to inform the public of the unique service we are able to provide.

Advertisers are, of course, attracted by ratings. Our ratings will be based, ironically enough, partially on the number and variety of advertisers we have. The more advertisers we have, the more giveaways we will be able to offer. That, in turn, will feed the ratings, which will bring more advertisers. It is very much a self-fulfilling prophecy.

### 3.1.4 One-to-one Marketing

One-to-one marketing is the ability to have an advertisement shown to only certain users. The opposite of one-to-one marketing is what exists today – when an advertisement is broadcast to many people, regardless of their particular demographic category.

We seek to position the company as a leader in "permission marketing." That is, users are invited to tell us all they can about themselves. When users first install Castaway, they will be able to enter both basic and detailed demographic data. The basic data will include items such as number of people in household, average income, ages, hobbies, etc. Detailed data would allow users to choose their interests and other personal information (e.g. Sculling, Computer Games, Poetry, Wine, see Appendix 9.2 for full list). Of course, this information is optional, and not required. However, users will have an incentive to fill out extremely detailed advertising data. If users provide us with additional information, they will receive 10 free entries for every prize that is offered immediately. Once we know this data about each user, we can target advertisements to individual people, which is the optimum situation for advertisers.

17



### 3.1.7 User Customizable Features

Castaway users are able to broadly specify what content they are interested in viewing. Based on these specifications, content and advertisements are “pushed” onto user desktops. This is the ideal situation for a screen saver paradigm, because the user will automatically get fresh content everyday. While in screen saver mode, users are not interested in constantly specifying what content to display. Castaway is no doubt one product where push technology will be warmly welcomed. In most cases, a whole day’s worth of content and advertisements will be sent to the client between 3 AM and 4 AM everyday when internet traffic is at a minimum.

To summarize exactly what users may customize, below are screenshots and descriptions of the “Options” window that has been in development over the previous years.

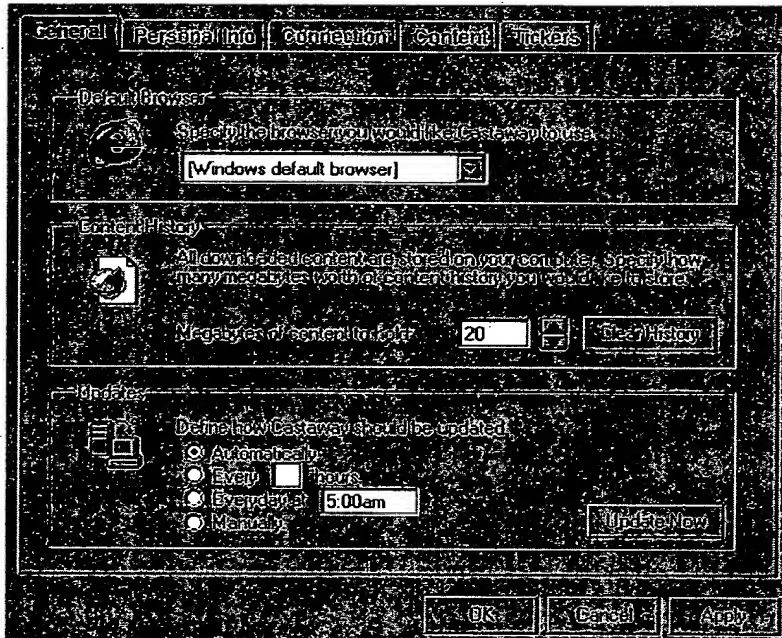


Figure 3.7 The General tab within the Options window

Within the *General* tab, the user can set which web browser will be used by Castaway when required. The browser will generally be launched when the user clicks on an advertisement. This will lead the user to the advertiser’s web page or to a particular page where they may purchase the product being advertised.

The user may also decide how much content history should be stored on his/her computer. The amount of content history is defined in megabytes, and can be adjusted in increments of one.

#### 4.1.2 Unique "Push" Implementation

Today, there still exists a schism between two competing technologies for information distribution over the internet. The first, and more traditional, method is through "pull" technology. This "pull" technology requires the user to actively click and follow links which are of particular interest. This is very much considered user-driven information gathering.

The other, newer school of thought, involves "push" technology. This only requires the passive attention of a user, and the information is presented to him, very much like television. The user may usually select what sort of information is sent to him during a one-time setup, but thereafter, he remains a passive observer. The Wall Street Journal reports that push technology will result in \$4.6 billion in revenue by the year 2000. There is no doubt that push technology is the next trend in the industry.

These two technologies are currently in competition for the most effective form of marketing. Our competition only lies with those companies providing the "push" technology. Our main competitor, PointCast, uses an internet connection to send data to the user's computer. They feature news content which is complimented with advertisements. These advertisements are typically static, and offer nothing other than a billboard on the side of the highway. PointCast currently has a monopoly in implementing push technology for advertising purposes. Peter Storck, group director of online advertising at Jupiter, says "there are not that many opportunities for an advertiser to buy push. . . You can buy PointCast and you can send direct e-mail, but that at the moment is about it. . . Advertisers like the early signs of push. . . It's more intrusive and it's more like TV."

Because we are using our own Symbiosis technology to make every advertisement offer quite a bit more, there are no real competitors. As was already explained, our technology makes every advertisement special by giving the viewer a chance to win a prize without their involvement. We also show the current entries to the prize, recent winners, and other prize related information. Nothing like this has ever been done before.

#### 4.2 Target Markets

Being a broadcast company, our target market is huge and diverse. The particular content we offer has target audiences, but our product as a whole does not. For example, what is the target market of NBC? Their target market is essentially everyone with a TV. The individual programs, like Frasier for example, have certain target markets.

During initial rollout of our product, we will have five distinct genres of content. Therefore, we will be targeting five distinct markets. Most importantly, our product is entertainment-based, meaning all of the target markets fall under the realm of "entertaining content," rather than news or educational programming.

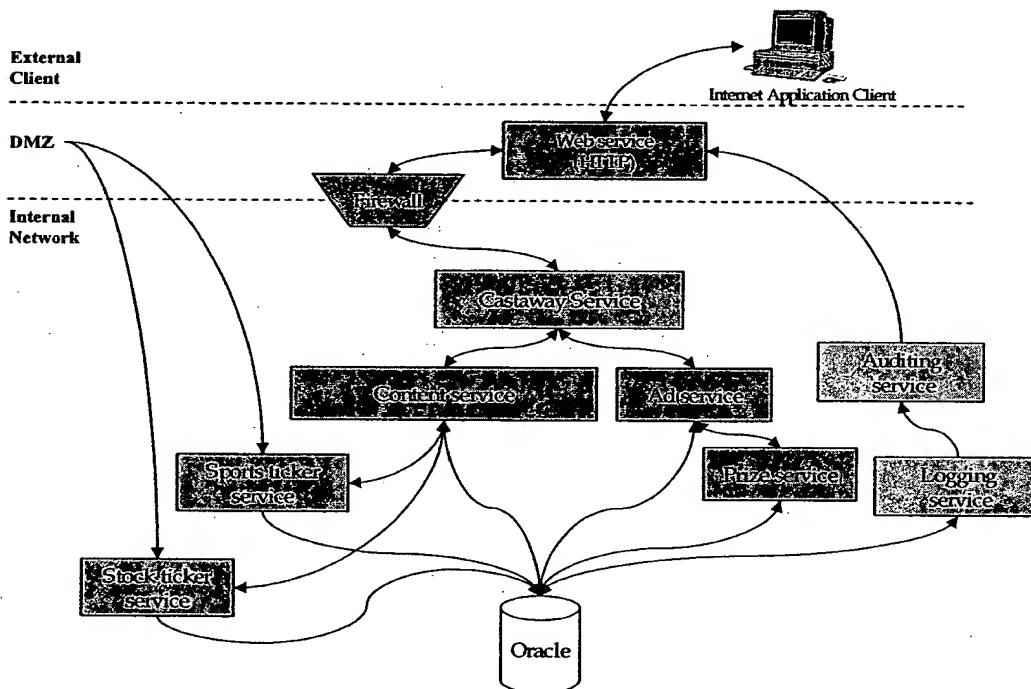
20

Our database will either be Oracle 8i or Microsoft SQL Server 7.0. A database broker will sit on the application server, and will administer the concurrent connections to the database. In the analysis of the application architecture, we can determine how the number of concurrent connections required will vacillate depending on the number of users and the time of day.

Certainly, there is nothing magic about our server side technical architecture. The same system has been set up hundreds of times across several different platforms. Where Castaway makes a departure is in the application architecture.

## 6.4 Application Architecture

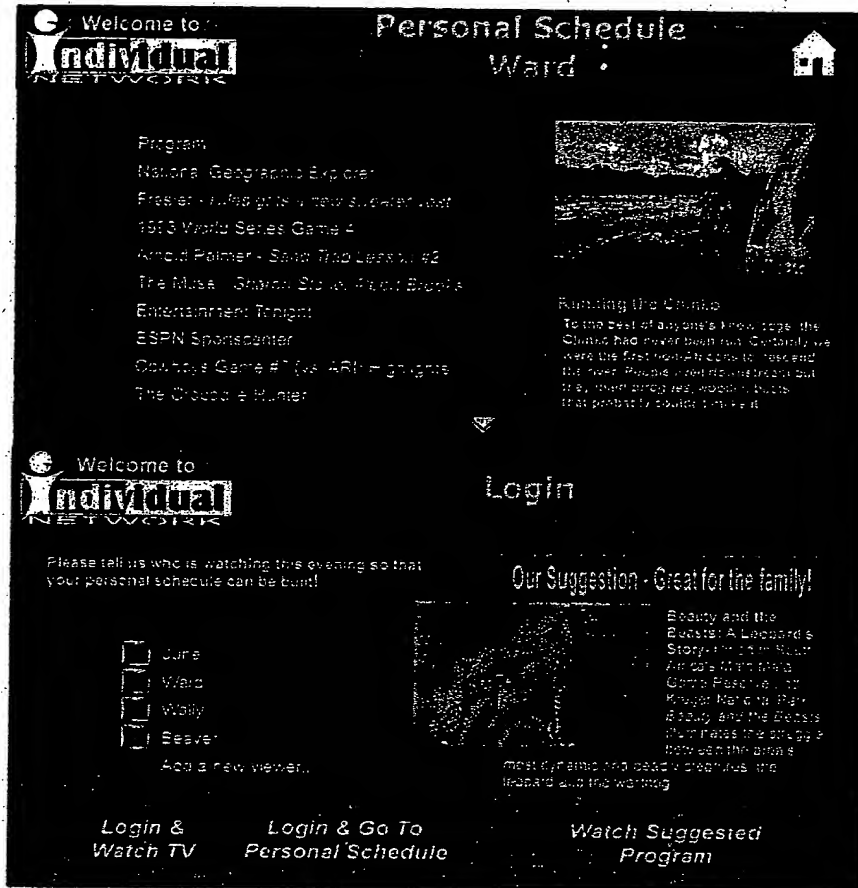
Just as with the technical architecture, and majority of the application architecture sits on the server side. The following figure illustrates the various application pieces and how they interact with one another.



The design of the server-side application architecture revolves around getting data from and to the database. Therefore, this first section will explore the relational database model. Naturally, this is a simplistic view of the database, but the database model is comparably less complex than that of most client server applications.

## Screenshots of Client Application

The following four screenshots show the progress of the client application thus far. The client application is fully functioning; however the video server itself still needs coding.





## Personal Profile Ward



Ward, please indicate more specifically what sports you enjoy to make your personal schedule even better!

- ☐ Archery
- ☐ Auto Racing
- ☐ Baseball
- ☐ Basketball
- ☐ Boxing
- ☐ Bowling
- ☐ Canoeing
- ☐ Chess
- ☐ Climbing
- ☐ Football
- ☐ Golf
- ☐ Hockey
- ☐ Judo

- ☐ Karate
- ☐ Kickboxing
- ☐ Lacrosse
- ☐ Martial Arts
- ☐ Motorsports
- ☐ Netball
- ☐ Soccer
- ☐ Tennis
- ☐ Triathlon
- ☐ Volleyball
- ☐ Water Sports
- ☐ Wrestling



### SOCCER

By indicating soccer, your schedule will include the greatest soccer matches from around the world. Every day from now, English Premier League matches to American MLS and the classic World Cup matches.



## Search by Title NAT



### PROGRAM

National Geographic Explorer  
National Lampoon Vacation  
National Lampoon Senior Trip  
National Velvet  
Naturally Fit  
Naturquest  
Ned and Stacy  
Not Talk  
Never Too Late  
Neverending Story, The

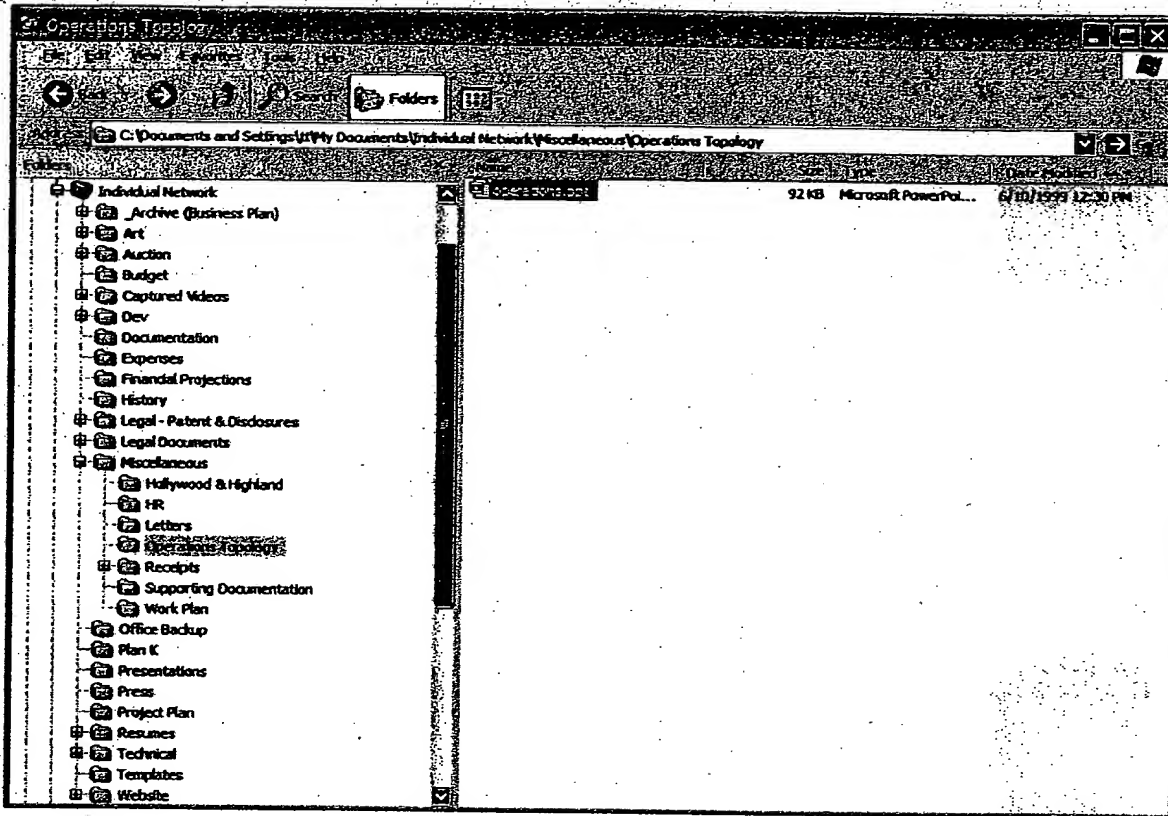
### EPISODE

Cheetah Chase  
Lost Road to the Inca  
Lost Road to the Inca II  
Outback Venom  
Shipwreck Hunters  
Tiger Shark  
The Battle for Midway  
The Body Snatchers  
The Ice Mummies  
Tornado Hunters



### Tiger Shark

Despite their fearsome reputation, tiger sharks are actually quite docile. In this episode, the shark is caught in a net and brought to the beach. The shark is then put in a tank and kept for a week. During this time, the shark is fed and its behavior is observed.



Client asks advertisement

Server queries  
database for  
advertisement

User id and ad id sent to server

Advertisement  
returned

Client shows advertisement content

User id and content id  
sent to server

Advertisement  
returned

Client requests content update

Client identifies the  
content/ads

User id sent to the server

Advertisement  
returned

Client requests more info  
about advertisement

Client identifies  
advertisement

Ad id sent to the server

Advertisement  
returned

Client requests content update

Client identifies the  
content/ads

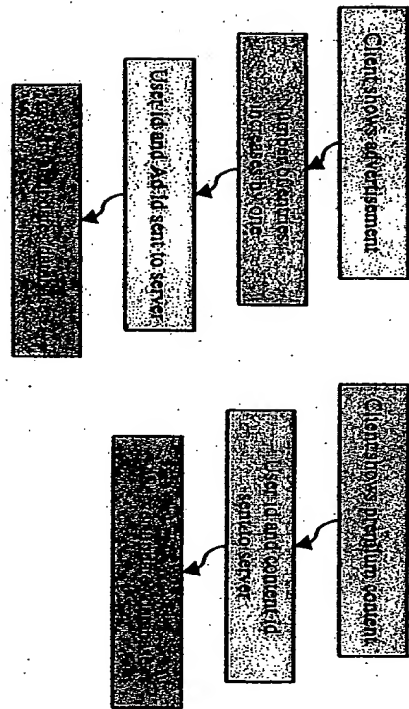
User id last update  
time, ad program  
list sent to the server

Advertisement  
returned

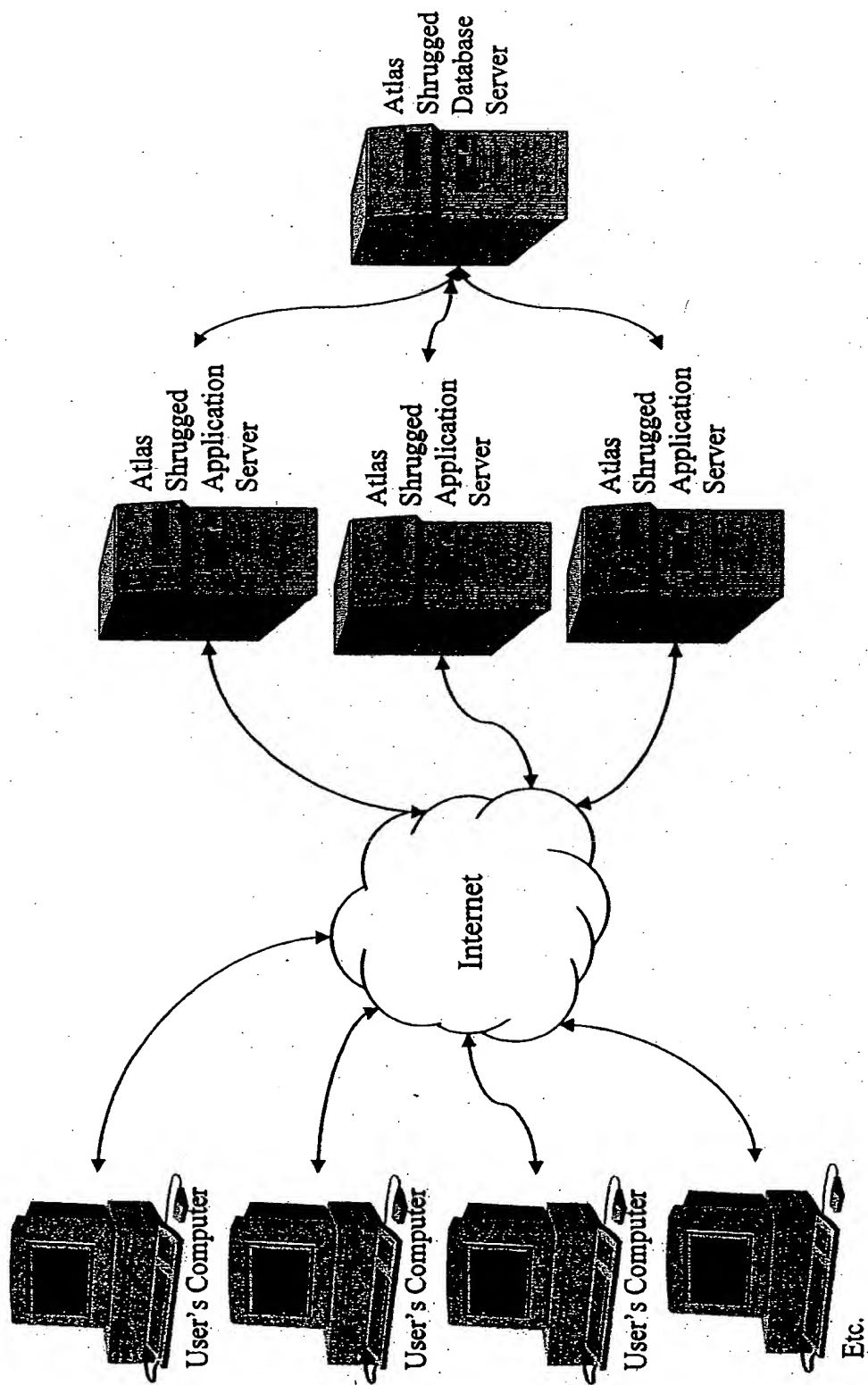
Advertisement  
returned

Advertisement  
returned

Advertisement  
returned







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